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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,518	01/16/2004	Michael Reuschel	GS 0648 A US	7046
20676	7590	05/31/2006	EXAMINER TRAN, DALENA	
ALFRED J MANGELS 4729 CORNELL ROAD CINCINNATI, OH 452412433			ART UNIT	PAPER NUMBER

3661

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/759,518		REUSCHEL, MICHAEL	
	<b>Examiner</b>		<b>Art Unit</b>	
	Dalena Tran		3661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This office action is responsive to the amendment filed on 3/17/06. As per request, claims 1, and 6-13 has been amended. Thus, claims 1-4, and 6-13 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 8-10, and 12-13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulia (6558286) in view of Hattori et al. (4790214).

As per claim 1, Gulia discloses a method for adjusting a contact force between two frictionally-engaged torque-transmitting components of a motor vehicle drive system, method comprising the steps of: determining from a value of at least one motor vehicle drive system operating parameter a preliminary adjusting value for a contact force between an endless torque-transmitting and a pair of conical disks of a continuously variable transmission having a steplessly adjustable transmission ratio (see the abstract; columns 3-4, lines 53-45; and columns 10-11, lines 15-53). Gulia do not disclose determining a regulator output value by comparing an actual value of a transmission operating parameter with a target value of the operating parameter. However, Hattori et al. disclose determining a regulator output value by comparing an actual value of a transmission operating parameter with a target value of the operating parameter (see columns 2-3, lines 4-10; columns 5-6, lines 26-21; and column 15, lines 7-65), and determining

Art Unit: 3661

from a control variable that is a function of the preliminary adjusting value and the regulator output value the contact force to be applied to the torque-transmitting components (see columns 3-4, lines 41-55; and columns 13-14, lines 48-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Gulia by combining determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter for accurately adjusting the contact force of the torque transmitting component.

As per claim 2, Gulia discloses the regulator output value is only operative during quasi-static operating conditions of the drive system (see columns 8-9, lines 49-28).

As per claim 3, Gulia discloses wherein the preliminary adjusting value is in direct relationship with the contact force (see columns 6-7, lines 47-21). Hattori et al. disclose the regulator output value is in direct relationship with the contact force (see columns 5-6, lines 26-21).

As per claim 4, Gulia does not disclose adding together the preliminary adjusting value and the regulator output value. However, Hattori et al. disclose the step of providing an adjusting value by adding together the preliminary adjusting value and the regulator output value (see columns 3-4, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Gulia by combining adding together the preliminary adjusting value and the regulator output value for adjusting the contact force of the torque transmitting component.

As per claim 6, Gulia discloses the preliminary adjusting value is a function of a rotational speed of the pair of conical disks and the transmission ratio of the continuously variable transmission (see columns 4-5, lines 46-7).

As per claim 8, Gulia does not disclose correlating an actual value of the operating parameter with a change in quantity that affects the value of the operating parameter. However, Hattori et al. disclose determining the adjusting value by correlating an actual value of the operating parameter with a change in quantity that affects the value of the operating parameter (see columns 3-4, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Gulia by combining correlating an actual value of the operating parameter with a change in quantity that affects the value of the operating parameter for accuracy adjusting a contact force.

As per claim 9, Hattori et al. disclose determine the preliminary adjusting value by utilizing a relationship between a change of an input value and a change in the operating parameter that is used for the regulator output value and that is a function of the input value (see column 8, lines 31-68; and columns 9-11, lines 33-14).

Also, as per claim 10, Hattori et al. disclose wherein one of the torque-transmitting components is an endless torque-transmitting means and another component is a conical disk pair of a continuously variable transmission, and a regulation difference is a function slippage between the torque-transmitting components (see columns 3-4, lines 41-55).

As per claim 12, Gulia discloses applying to the control variable at least one additional control variable component, calculated from a model of the drive train (see columns 7-8, lines 23-47).

Art Unit: 3661

Claim 13, is an apparatus claim corresponding to method claim 1 above. Therefore, it is rejected for the same rationales set forth as above.

4. Claim 11, is rejected under 35 U.S.C. 103(a) as being unpatentable over Gulia (6558286), and Hattori et al. (4790214) as applied to claim 10 above, and further in view of Hiramatsu et al. (4665773).

As per claim 11, Gulia, and Hattori et al. do not disclose a slippage threshold value. However, Hiramatsu et al. disclose supplying to the adjusting value an additional value when the slippage exceeds a threshold value (see columns 2-3, lines 23-61; and columns 7-8, lines 46-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Gulia, and Hattori et al. by combining a slippage threshold value to adjust the contact force.

5. Claim 7 is allowable.

#### **Remarks**

6. Applicant's argument filed on 3/17/06 has been considered. Upon updated search, the new ground of rejection as above.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner

Dalena Tran

A handwritten signature in cursive script, appearing to read 'Dalena Tran', with a long horizontal flourish extending to the right.

May 25, 2006